

some black with pale legs, others with the legs particolored and with the elytra partly red and partly black. In most of them the basal five joints of antennae and joint 11 are pale, while the club is dark above and pale beneath. They are all clothed throughout with thin fine pubescence but little obscuring the surface sculpture."

The combined generic and specific description of the genus *Bonaërius* and its genotype, *Bruchus inlineatus* Pic, follows:

Bonaërius inlineatus (Pic), 1930

Antennal joints 1-5 narrow, 6 small, twice as wide as 5; joints 7-10 transverse, cyathiform, forming with the expanded-ovate joint 11 a broad paddle-shaped club. Head short, frontal carina short, front about twice as broad as inner lobe of eye. Eye emarginate for one-half its length, convex, strongly projecting, temples narrow, abruptly declivous.

Pronotum flat and even above, resembling that of *Bruchus loti* Paykull in shape. Flanks separated from dorsum by a nearly straight marginal carina ending above the coxa remote from the front margin, the flanks not closed in front.

Intercoxal process of prosternum short, metasternum with a deep median longitudinal sulcus.

Scutellum quadrate, emarginately bidentate.

Elytra broader than pronotum, flattened

above, subquadrate, without basal tubercles or elevations. Striae 2-6 and 10 reaching base; striae 5 and 6 abbreviate at apex. Striae strongly impressed and punctured, intervals flat.

Front and middle femora a little more than usually incrassate. Hind femur slender, about as wide as its coxa and narrower than the first sternite behind the coxa, a little flattened beneath, armed near apex within with a single blunt tooth, not reaching apex of abdomen.

Hind tibia slender, not longitudinally carinate beneath or on outer face; armed at apex beneath with two similar symmetrically disposed blunt teeth and above with three subdorsal apical teeth. Basitarsus gently arched, not apically produced beneath, without longitudinal carinae.

Pygidium convex, about as broad as long, oblique; apex of pygidium rounded and bent down, impressed on either side, a prominent little mound in the middle between the two poorly defined impressions.

While the general form resembles *Althaeus hibisci* (Olivier), 1795, *Abutiloneus idoneus* Bridwell, 1946, *Acanthoscelides aequalis* (Sharp), 1885, and other species of Acanthoscelidini known to affect seeds of Malvaceae, this resemblance is believed to result from their developing within rounded seeds rather than from any particular affinity among them. The peculiar pygidium distinguishes this genus from any other bruchid known to me.

HERPETOLOGY.—*Two Brazilian frogs: Hyla wernerii*, n. nom., and *Hyla similis*, n. sp. DORIS M. COCHRAN, United States National Museum.

In 1874, Meyer proposed the name *Hyperolius pygmaeus* for a frog from Jobi Island in Dutch New Guinea (Monatsb. Akad. Wiss. Berlin, 1874: 139). Loveridge (Bull. Mus. Comp. Zool. 101 (2): 397. 1948) lists this species as *Hyla pygmaea* (Meyer). It appears, therefore, that the name *Hyla pygmaea* proposed by Werner in 1894 for a frog from Santa Catharina, Brazil, should be renamed. I propose the following name for the Brazilian frog:

Hyla wernerii, n. nom.

Hyla pygmaea (not of Meyer) Werner, Zool. Anz. 7: 411. 1894 (type locality, Blumenau, Santa Catharina); Nieden, Das Tierreich, Anura 1: 289. 1923.

Hyla pygmaea Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro 27: 83. 1923; Mello-Leitão, Zoo-geografia do Brasil: 341. 1937.

A gregarious little frog that quacks like a duck occurs in considerable numbers in the Federal District and within the city limits of Rio de Janeiro. So far no name already proposed seems to apply to this species. It is one of the *rubra* group, quite easily recognized as one of that group because of its very thick tibia and the yellow and brown reticulations on the posterior femur. But like all the group, this form also varies individually to a very considerable degree. It may intergrade with *hayii* in the lower mountain regions, and with *fuscovaria* in the uplands of southern Minas Gerais. Only further collecting and study can limit its precise range.

Hyla similis, n. sp.

Diagnosis.—Resembles *H. fuscovaria* A. Lutz in shape and structure of head and body and in a

tendency toward a grouping of dark elongate spots dorsolaterally. Differs in its significantly lower average length of head, femur, tibia, and foot, in the absence of clear-cut dorsolateral stripes, in the usually more finely spotted femur and tibia, and in its smaller size (maximum length 37 mm).

Description of the type.—An adult male, U.S. N.M. no. 97317, from Manguinhos near the city of Rio de Janeiro collected on February 25, 1935, by Joaquim Venancio. Vomerine teeth in two heavy, short, transverse groups almost continuous medially, between the posterior halves of the choanae; tongue about three-fifths as wide as mouth opening, roundly elliptical except for a deep notch on its free posterior margin; snout rather short, rounded when viewed from above and in profile, the upper jaw extending considerably beyond the lower; nostrils superolateral, greatly projecting, almost at the extreme tip of snout, separated from each other by an interval equal to two-thirds their distance from eye. Canthus rostralis rounded; loreal region slightly concave and very oblique. Eye large, very prominent, its diameter equal to its distance from nostril and to five-sixths the length of snout; interorbital diameter about $1\frac{1}{4}$ times the width of upper eyelid, greater than distance between nostrils. Tympanum very distinct, about two-thirds the width of eye, separated from eye by a very narrow interval equal to about one-eighth its own diameter. Fingers with a slight trace of a basal web, fourth very slightly longer than second but not reaching the base of third, which covers one-fourth the tympanic area; no rudiment of a pollex visible; toes one-half webbed, fifth slightly longer than third, disk of fourth toe covering about one-fourth the tympanic area; a distinct oval inner and a small, wartlike outer metatarsal tubercle; a faint glandular ridge along inside of tarsus and a still weaker outer tarsal ridge; no dermal appendage on heel. Body moderately heavy in build, in postaxillary region narrower than greatest width of head. When hind leg is adpressed, heel reaches to anterior border of eye; when limbs are laid along the body, knee and elbow are separated by a considerable interval; when hind legs are bent at right angles to the body, heels considerably overlap. Skin of upper parts with numerous elongate glandules and small tubercles, especially prominent on the center of the back; a narrow glandular ridge encircling upper part of tympanum and ending just behind it above the

shoulder; skin of throat and chest with minute scattered pustules, that of belly coarsely granular on the breast, finely granular posteriorly and on the lower surface of femur; a slight skin fold across the chest and another much more prominent preceding it across the throat. A series of lateral folds on each side of the throat marking the presence of lateral gular sacs in the male.

Dimensions.—Head and body, 35 mm; head length, 11.5 mm; diameter of eye, 4 mm; width of head, 11 mm; femur, 15 mm; tibia, 16.5 mm; hind limb, 48 mm; forelimb, 19 mm; foot, 14 mm; hand, 9 mm.

Color in alcohol.—Dorsal ground color ecru-drab, with an indistinct light sepia triangle between the eyes; a dorsolateral longitudinal series of very irregular sepia spots sometimes anastomosing across the back, their outer margin dark and fairly straight, delineating a dorsolateral stripe of the pale ground color, this light stripe edged below with an indefinite dark stripe, which begins behind the tympanum and breaks up on the sides into a fine reticulation of dark on a light ground, continued and becoming coarser toward the groin; a faint dark line along canthus rostralis; loreal region and upper lip marbled slightly with drab; upper surface of femur with fine sepia reticulations fading out on the anterior surface, becoming darker and coarser on the posterior surface and enclosing irregular pale cinnamon areas; upper surface of tibia with three large diagonal spots; outer tarsus and upper arm indistinctly marbled with drab; ventral surface immaculate buff.

Color in life.—Some color notes on living specimens from Manguinhos were made on January 18, 1935. U.S.N.M. no. 97374: Malachite to sage green above, immaculate. Posterior femur chrome-yellow with brown reticulations. Throat citron-yellow; belly sulphur-yellow in the center, chrome-yellow toward the sides, immaculate. U.S.N.M. no. 97376: Dorsum clay color in center, with a drab dorsolateral stripe. Groin and ventral surface olive-buff, the sides with sepia spots. Fore and hind legs ochraceous, barred with raw umber. U.S.N.M. no. 97375: Dorsum light olive-gray, with coarse mouse-gray blotches edged with black. Upper and posterior parts of femur orange-ochraceous, mottled with dark sepia. Chin, chest, and lower parts of limbs ecru-drab; belly pale blue.

Variations.—Within the usual limits there is the same amount of confusing variation in this

species that is met with in the other members of the *rubra* group. The snout is usually rounded, but in about one-third of the examples it is slightly pointed. The tympanum, always distinct, may range from one-half to two-thirds the diameter of the eye in width. The interorbital diameter is often $1\frac{1}{2}$ times the width of the upper eyelid, but in a few instances scarcely exceeds the eyelid in width. The distance from the posterior border of the tympanum to the tip of the snout varies between 31 and 36 percent of the total length of head and body, while the tibia is from 43 to 54 percent of this length. The adpressed heel may reach occasionally only to the posterior corner of the eye, most often to the center or anterior border of the eye, and rarely as far as the nostril. The disks of the fingers may be large, moderate or rather small, and as the tympanum itself varies considerably in size, the fourth finger disk may cover as little as one-fourth of its area to as much as two-thirds. The skin of the back is smooth in perhaps one-fourth of the specimens (this may depend on preservation to some extent), faintly granular all over in some, granular only on the posterior part in others.

The pattern seems as varied as do the physical dimensions. Usually there is a more or less distinct dark area between the eyes, but no other markings are at all constant. Some individuals are pale drab, with remnants of longitudinal dark stripes as in *rubra* appearing in this species as two rather irregular dark stripes enclosing a light area on each side of the back. In other specimens the upper one of the two dark stripes shortens and becomes crescentic; in many cases its inner edge approaches its fellow until they nearly fuse across the back, and in some cases they actually do become fused, with a few scattered light spots on them which may indicate their usual limits. Sometimes there is an irregular network of coarse dark spots down the back; sometimes an inverted V or its separated elements may appear on the sacral region. The upper part of the femur is usually irregularly spotted or reticulated; in only a few instances do these spots suggest the regular dark cross bars characterizing some other members of this group. Quite often the posterior surface of the femur reveals a rather large, very irregular, elongate light spot surrounded and set off by narrow dark reticulations. In other cases the posterior femur is finely marbled with small light and dark spots in about equal proportions. The upper surface of the tibia often has three irregular oval

spots placed diagonally across it. Any of these dark spots may lighten, leaving only a narrow dark outline which suggests a parallelogram or an irregular circle. Numerous small dark dots scattered over the upper surfaces still further obscure the pattern. The sides sometimes show linear rows of dark dots more or less fused into a network, or often a scattering of fine dots with no particular arrangement. The groin quite often has a very pale (yellowish in life) area, confined sometimes to an elongate irregular spot encircled by darker, heavier reticulations. The ventral surface appears to be immaculate in the specimens at hand. A good many individuals show a dark brown stripe along the canthus, with considerable spotting on the upper lip; other specimens have a much lighter canthal stripe and the labial spots are reduced to a light marbling. Sometimes the canthal stripe is continued over the tympanum as a narrow dark line, widening behind the ear and often ending in front of the forearm, but also sometimes carried part way down the side as an irregular dark stripe.

Remarks.—It is perhaps rash to give a new name to another of the *rubra* group, the most variable of any in Brazil, but no formerly proposed name seems to be applicable to the form coming from within the Federal District. *H. x-signata* of Spix from Bahia is apparently nearest to *similis*, after *fuscovaria*, but fresh Bahian material is needed before an exact comparison can be made.

This species has the peculiar habit of "swarming," as hundreds appeared at one time on a tree outside the laboratory at the Instituto Oswaldo Cruz. The voice of the adult is a high-pitched *crack, crack, crack*, sounding somewhat like that of a duck. Breeding takes place in March and April. The tadpoles metamorphose very rapidly, taking only 20 to 30 days to change into frogs, but they are rather delicate, as they die from the effects of too much sun if the water in which they live is not deep enough.

While this species is exceedingly plentiful at Manguinhos, it is not known from the southern part of the state of Rio de Janeiro. In fact, only two other examples at all resembling this form are known outside of the Manguinhos material. One of these is from Bom Sucesso, a few minutes' ride by automobile from Manguinhos, while the other, no. 96213, not in good condition but seeming to belong to the present species, is from Amorim near the city of Rio de Janeiro.

MATHEMATICAL ANALYSIS

	Head length	Head width	Femur	Tibia	Foot	Hand
N	49	49	49	49	49	49
M	33.7	31.9	42.0	48.0	39.0	26.2
σ	1.2	1.2	1.3	2.0	2.0	1.4
V	3.56	3.76	3.10	4.17	5.13	5.36
σ_m	0.01	0.54	0.44	0.50	0.73	0.77
Range	31.1— 36.0	29.4— 35.1	37.9— 47.1	43.5— 54.2	34.8— 47.5	23.9— 30.0

List of specimens.—Rio de Janeiro (state): U.S.N.M. no. 97317, the type of *Hyla similis*, and paratypes U.S.N.M. nos. 97312–6, 97318–52,

97374–6, from Manguinhos, all collected between January 18 and May 20, 1935, mostly by J. Venancio; U.S.N.M. nos. 96144–6 from Manguinhos collected in January 1922; U.S.N.M. no. 96203, an adult male from Bom Sucesso near the city of Rio de Janeiro, collected on October 25, 1928, and received from Dr. A. Lutz; U.S.N.M. no. 96213 from Amorim near the city of Rio de Janeiro collected in January 1926; U.S.N.M. nos. 81119–21 from Rio de Janeiro, collected in 1930 and received from Dr. A. Lutz.

HELMINTHOLOGY.—*Hymenolepis johnsoni*, n. sp., a cestode from the vole *Microtus pennsylvanicus drummondii*. EVERETT L. SCHILLER, Arctic Health Research Center, Anchorage, Alaska. (Communicated by Harald A. Rehder.)

In connection with a separate work concerning morphological variation, the writer had occasion to study a number of hymenolepidid cestodes obtained from the autopsy of some preserved microtine rodents in the collection of the U. S. National Museum. Two of these cestodes, taken from a vole, *Microtus pennsylvanicus drummondii* (Audubon and Bachman), collected at Fort Rae, District of Mackenzie, Canada, represent a species of the genus *Hymenolepis* Weinland, 1858, which appears to be unknown in the parasitological literature and therefore is herein described as new.

The voles from which this material was taken were included among a large series of preserved rodents made available to Dr. Robert Rausch, of this laboratory, in conjunction with a survey of the helminth parasites of Nearctic microtine rodents. All hymenolepidid cestodes were turned over to the writer for study. This opportunity is taken to express to Dr. David H. Johnson, associate curator, division of mammals, U. S. National Museum, appreciation of his generous cooperation, which has made these studies possible.

***Hymenolepis johnsoni*, n. sp.**

Figs. 1–3

Diagnosis.—Length of strobila 30–40 mm; maximum width 1.4 mm, attained at posterior end. Scolex diameter 150–180 μ . Suckers, unarmed, 64 by 80 μ . Evaginated rostellum 160 μ long by 48 μ wide at apex, which supports single row of 10 hooks 15 μ in length. Strobila 108 μ wide immediately posterior to

base of scolex. Genital pores unilateral and dextral. Genital ducts pass dorsal to excretory canals. Cirrus sac muscular, averages 112 μ in length by 43 μ in diameter in mature proglottids. External seminal vesicle well developed, 115 by 72 μ . Cirrus armed with minute spines. Testes, three in number, ovoid, 24 by 32 μ , arranged in form of triangle with one testis poral and two aporal to ovary and vitelline gland. Deeply lobed ovary located in middle of proglottid. Vitelline gland lies ventral and posterior to ovary. Vagina ventral and posterior to cirrus sac. Saccate seminal receptacle prominent in mature proglottids, attains maximum size of 168 by 104 μ . Uterus extends as slender irregular tube transversely across anterior part of proglottid, passing dorsal to excretory canals and reaching beyond them. Completely developed eggs not observed. Ventral longitudinal excretory canals measure 93 μ in diameter; dorsal canals, 11 μ in diameter.

Host.—*Microtus pennsylvanicus drummondii* (Audubon and Bachman).

Locality.—Fort Rae, District of Mackenzie, Canada.

Habitat.—Small intestine.

Type.—One slide, no. 37340, containing an entire specimen, has been deposited in the Helminthological Collection of the U. S. National Museum.

DISCUSSION

Baer (1931) listed 14 armed species of *Hymenolepis* parasitic in rodents and added *H. muris-sylvatici* (Rudolphi, 1819) to this